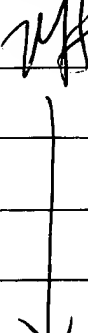




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	Application Number	09/412,297
	Filing Date	October 5, 1999
	First Named Inventor	TING, Kang
	Group Art Unit	1645
	Examiner Name	V. Ford
	Attorney Docket Number	407T-962900US
Date Submitted	March 22, 2002	

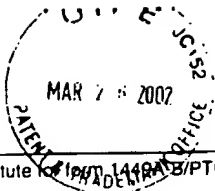
U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code (if known)			
		4,394,370		Jefferies	07-19-1983	
		4,409,332		Jefferies et al.	10-11-1983	
		5,385,887		Yim et al.	01-31-1995	
		5,674,725		Beertsen et al.	10-07-1997	
		5,763,416		Bonadio et al.	06-09-1998	
		5,854,207		Lee et al.	12-29-1998	
		5,916,870		Lee et al.	06-29-1999	
		5,942,496		Bonadio et al.	08-24-1999	
		5,948,428		Lee et al.	09-07-1999	

FOREIGN PATENT DOCUMENTS								
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		BECK et al. (1991) "Rapid Publication TGF-β ₁ Induces Bone Closure of Skull Defects," <i>Bone Miner. Res.</i> 11:1257-1265.			
		CHEN et al. (1998) "Structure, Chromosomal Localization, and Expression Pattern of the Murine <i>Magp</i> Gene," <i>Biol Chem.</i> 268:27381-27389.			
		CRAWFORD et al. (1998) "Thrombospondin-1 is a Major Activator of TGF-β ₁ in Vivo." <i>Cell</i> 93(7):1159-1170.			
		FRANCOIS AND BIER (1995) "Zenopus <i>chordin</i> and Drosophilia <i>short gastrulation</i> Genes Encode Homologous Proteins Functioning in Dorsal-Ventral Axis Formation." <i>Cell</i> 80(1):19-20			
		KIM et al. (1999) "NELL-1 Enhances Mineralization in Fetal Calvarial Osteoblastic Cells." <i>Surgical Forum</i> L:599-601.			

Examiner Signature		Date Considered	12/19/05
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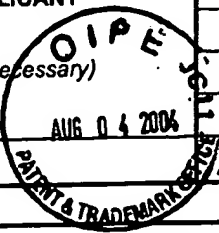
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	Examiner Name	V. Ford
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TH	KURODA AND TANIZAWA (1999) "Involvement of Epidermal Growth Factor-like Domain of NELL Proteins in the Novel Protein-Protein Interaction with Protein Kinase C ¹ " <i>Biochem Biophys Res Commun</i> 265(3):752-757.	
	KURODA et al. (1999) "Biochemical Characterization and Expression Analysis of Neural Thrombospondin-1-like Proteins NELL1 and NELL 2" <i>Biochem Biophys Res Commun</i> 265(1):79-86.	
	LUCE AND BURROWS (1999) "The neuronal EGF-related genes <i>NELL1</i> and <i>NELL2</i> are expressed in hemopoietic cells and developmentally regulated in the B lineage" <i>Gene</i> 231:121-126.	
	PICCOLO et al. (1996) "Dorsoventral Patterning in <i>Xenopus</i> : Inhibition of Ventral Signals by Direct Binding of Chordin to BMP-4" <i>Cell</i> 86(4):589-498.	
	TING et al. (1999) "Human NELL1 Expressed in Unilateral Coronal Synostosis" <i>J. Bone Mineral Res.</i> 14(1):80-89.	
	TING et al. (2000) "NELL-1 Enhances Mineralization in Fetal Calvarial Osteoblastic Cells." <i>J. Dent. Res.</i> 79:625.	
	TORIUMI et al. (1991) "Manibular Reconstruction With a Recombinant Bone-Inducing Factor." <i>Arch. Otolaryngol. Head Neck Surg.</i> 117:1101-1112.	
	WATANABE et al. (1996) "Cloning and characterization of two novel human cDNAs (<i>NELL1</i> and <i>NELL2</i>) encoding proteins with six EGF-like repeats." <i>Genomics</i> 38(3):273-276	
	YASKO et al (1992) "The Healing of Segmental Bone Defects, Induced by Recombinant Human Bone Morphogenetic Protein (rhBMP-2)." 5:659-670.	

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		Art Unit	1645
Examiner Name	FORD, Vanessa		
Attorney Docket Number	38586-329		
Sheet	1	of	1




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VFA	1	US-5,674,844	10-07-1997	Kuberasampath et al.
	2	US-6,083,690	07-04-2000	Harris et al.
	3	US-6,352,972	03-05-2002	Nimni et al.
	4	US-6,413,998	07-02-2002	Petrie et al.
	5	US-6,462,019	10-08-2002	Mundy et al.

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VFA	6	BELLOWS, C.G. et al. "Determination of Numbers of Osteoprogenitors Present in Isolated Fetal Rat Calvaria Cells in Vitro." Dev. Biol. (1989) 133(1), pp. 8-13.	
	7	BURGER, E.H. et al. "Osteoblast and Osteoclast Precursors in Primary Cultures of Calvarial Bone Cells." Anat Rec. 1986 Jan; 214(1): 32-40. Abstract Only.	
	8	HOSHI, K. et al. Fibroblasts of Spinal Ligaments Pathologically Differential Into Chondrocytes Induced by Recombinant Human Bone Morphogenetic Protein-2: Morphological Examinations for Ossification of Spinal Ligaments. Bone Vol. 21, No. 2 (August 1997): 155-162.	
	9	OPPERMAN, L.A. et al. TGF- β 1, TGF- β 2, and TGF- β 3 Exhibit Distinct Patterns of Expression During Cranial Suture Formation and Obliteration In Vivo and In Vitro. Journal of Bone and Mineral Research, Vol. 12, No. 3 (1997): 301-310.	
	10	TAKAGI, K. et al. The reaction of the dura to bone morphogenetic protein (BMP) in repair of skull defects. Ann Surg. Vol. 196, No. 1 (July 1982): 100-109. Abstract only.	
	11	TAKAMI, M. et al. CA ²⁺ -ATPase Inhibitors and Ca ²⁺ -Ionophore Induce Osteoclast-like Cell Formation in the Cocultures of Mouse Bone Marrow Cells and Calvarial Cells. Biochemical and Biophysical Research Communications, Vol. 237, 1997: 111-115. (Article No. RC977090)	
	12	TIEU A. et al. "Identification of Human NEL-2 Associated with Premature Suture Fusion." J Dent Res. 77(A):635, 1998 (Presented March 4-7, 1998, Minneapolis, MN). Abstract Only.	
	13	TING, K. et al. "NEL-2 Expressed in Unilateral Prematurely Fusing and Fused Coronal Sutures." J Dent Res. 77(B):2224, 1998 (In Abstract book, but withdrew from presentation because unable to make June 24-27, 1998 trip to Nice, France). Abstract Only.	
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Examiner Signature	<i>Vanessa Ford</i>	Date Considered	12/19/05
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				Examiner Name	FORD, Vanessa
Attorney Docket Number	38586-329				

Sheet	1	of	1
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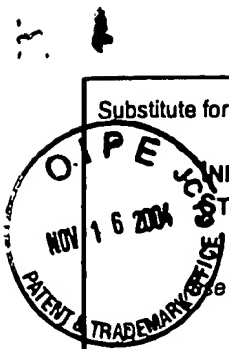
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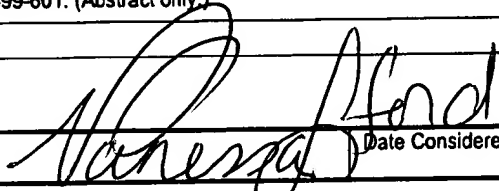
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		Country Code ² -Number ³ -Kind Code ⁴ (if known)		
VF	1	WO 01/24821 A1	04-12-2001	The Regents of the University of California

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VF	2	KIM, D et al. NELL-1 enhances mineralization in fetal calvarial osteoblastic cells. In Surgical Forum (1999), 50, 599-601. (Abstract only.)		

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